TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective July 1, 2011
WIN-426

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **January 2013**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Heritage Traditional Wood Fixed Casement Windows, Individual, Impact Resistant, manufactured by

Kolbe & Kolbe Millwork Co., Inc.
1323 South Eleventh Avenue
Wausau, WI 54401
(715) 842 - 5666

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The wood fixed casement windows evaluated in this report are impact resistant. This product evaluation report is for fixed casement windows based on the following tested constructions:

General Description:

System	Description	Rating	Hallmark Certification
1	Heritage Fixed Casement; Sash Set; Impact Performance to Missile D, Wind Zone 4	FW-C65 96 x 60 CW-PG65 96x60 - FW	413-H-1051.00 413-H-1051.01 413-H-1051.02
2	Heritage Fixed Casement; Sash Set; Impact Performance to Missile D, Wind Zone 4	FW-C65 96 x 60 CW-PG65 96x60 - FW	413-H-1083.00 413-H-1083.01 413-H-1083.02
3	Heritage Fixed Casement; Sash Set; Impact Performance to Missile D, Wind Zone 4	FW-C65 60 x 72 CW-PG65 60x72 - FW	413-H-1036.00 413-H-1036.01 413-H-1036.02

Product Dimensions:

System	Overall Size	Sash Size	Glass Size
1	96" x 60"	94 1/16" x 58 1/16"	91 1/4" x 55 1/4"
2	96" x 60"	94 1/16" x 58 1/16"	91 1/4" x 55 1/4"
3	60" x 72"	58 1/8" x 70 1/8"	55 1/4" x 67 1/4"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	IG-1	GM-1
2	SG-1	GM-1
3	IG-1	GM-1

Note: [1] See the "Glass Construction Key" for the glass construction.
[2] See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: Sealed insulating glass unit. The sealed insulating glass unit is comprised of a laminated glass unit and a $\frac{5}{32}$" fully tempered monolithic glass lite that are separated by a desiccant filled stainless steel spacer system. The laminated glass unit is comprised of two $\frac{5}{32}$" annealed glass lites separated by a 0.090" SGP interlayer. The glass thickness used in the insulating glass units of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

SG-1: Laminated glass unit. The laminated glass unit is comprised of two $\frac{1}{4}$" annealed glass lites separated by a 0.090" SGP interlayer. The glass thickness used in the laminated glass unit of the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The glass units are set from the interior onto a bed of structural silicone sealant. Another interior bead of structural silicone sealant is applied at the interior edge of the glass units around the perimeter and a vinyl bracket is installed into kerfs in the sash. Wood glazing stops are secured with brads spaced approximately 1 inch from each corner and 5-6 inches on center.

Frame Construction: The frame members consist of molded pine. The corners are rabbeted, butted, sealed with silicone, and secured with staples and screws. Interior wood stops are secured with staples spaced 2 inches from each end and 5-7 inches on center. **Brickmould:** A brickmould is secured to the frame jambs and head with fasteners spaced 3 inches from each end and 10-12 inches on center. The brickmould is mitered and secured with two screws per corner. The sill nosing is secured to the brickmould with one screw per corner and to the frame with glue and nails.

Sash Construction: The sash members consist of molded pine. The corners are mortise and tenon construction and secured with nails and screws. The sash is attached to the frame head and side jambs with sash clips that are secured with screws. The sash is attached to the sill with sill brackets that are secured with screws.

Product Identification: A certification program label (WDMA Hallmark Certified) will be affixed to the assembly. The certification program label includes the manufacturer's name; product name; performance characteristics; the approved inspection agency (WDMA); and the applicable standards: AAMA/WDMA/CSA 101/I.S.2/A440-05, AAMA/WDMA/CSA 101/I.S.2/A440-08, and ASTM E 1886 and ASTM E 1996. **Higher Negative Design Pressure:** The WDMA Hallmark Certified label indicates the product was tested to a higher negative design pressure. The higher negative design pressure is indicated in the limitations section of this report.

LIMITATIONS

Design pressures (DP):

System	Overall Width (in.)	Overall Height (in.)	Design Pressure (psf)
1	96	60	+60/-65
2	96	60	+65/-70
3	60	72	+65/-70

Impact Resistance: These window assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I zone** and the **Seaward zone**. The window assemblies passed Missile Level D specified in ASTM E 1996. The window assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded. These window assemblies will not need to be protected with an impact protective system.

Higher Negative Design Pressure: The WDMA Hallmark Certified label indicates the product was tested to a higher negative design pressure. The higher negative design pressure is indicated in the limitations section of this report.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

Installation:

Option 1 (Installation Clips): The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using Kolbe & Kolbe metal installation clips. The installation clips (1 5/8" x 6 5/16" x 0.04") are secured to the window side jambs, head, and sill. The clips are secured to the window frame with two (2) No. 8 x 3/4" screws. The clips are secured to the wall framing with one (1) No. 8 x 1 3/4" screw. The fasteners shall be long enough to penetrate a minimum of 1 1/2" into the wall framing. The spacing of the clips is specified in the table below.

Installation Clip Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1	Head/Sill: 13 3/4" Side Jambs: 15"	13 3/4"	13 3/4"	15"
2	Head/Sill: 12" Side Jambs: 15"	12"	12"	15"
3	Head/Sill: 15" Side Jambs: 12"	15"	15"	12"

Option 2 (Screws): The window assembly shall be fastened to minimum Southern Yellow Pine lumber. The window assembly is secured to the wall framing using minimum No. 10 x 2 1/2" screws. The fasteners shall be long enough to penetrate a minimum of 1 1/2" into the wall framing. The spacing of the fasteners is specified in the table below.

Screw Spacing:

System	Distance From Each Corner	Head (on center spacing)	Sill (on center spacing)	Side Jambs (on center spacing)
1	Head/Sill: 9 5/8" Side Jambs: 15"	9 5/8"	9 5/8"	12"
2	Head/Sill: 9" Side Jambs: 12"	9"	9"	12"
3	Head/Sill: 12" Side Jambs: 9"	12"	12"	9"

Brickmould: The brickmould shall be secured to the wall framing with minimum 2 1/2" long T-nails spaced approximately 12 inches on center along all four sides.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.